

REMARKS

Claims 6, 8-16, and 18-22 remain pending in the above-identified application.

Claims 6, 10, 12, and 18 – Section 102(e)

Applicants respectfully request reconsideration of the rejection of claims 6, 12, and 18 under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,497,238 (Knotter). Claims 6, 10 and 12 recite a substrate cleaning apparatus for cleaning a substrate including, among other things, a substrate cleaning bath and measuring means for measuring characteristics of the cleaning liquid in the substrate cleaning bath wherein the characteristics are relative to the hydrofluoric acid concentration of the cleaning liquid.

Knotter discloses monitoring conductivity of a solution and adding hydrofluoric acid (HF) and ammonium fluoride or water to the solution depending on the measured conductivity of the solution (col. 5, lines 30-40). Measuring solution conductivity, which is affected by *all* of the components in the solution, is not the same as measuring a concentration of a particular component of the solution. In one embodiment of the present invention the HF component and other individual components (e.g., ammonia and water) are individually measured (page 12, lines 18-27), further evidencing the distinction between measuring a single parameter (e.g., conductivity) of an entire solution and specifically determining a concentration of a particular component of a solution. Knotter fails to disclose measuring means for measuring characteristics of the cleaning liquid wherein the characteristics are relative to the hydrofluoric acid concentration.

Claim 18 recites a substrate cleaning apparatus for cleaning a substrate including a substrate cleaning bath and measuring means for measuring hydrofluoric acid concentration of the cleaning liquid in said substrate cleaning bath. As described above regarding claims 6, 10 and 12, Knotter fails to disclose measuring means measuring hydrofluoric acid (HF) concentration of the cleaning liquid.

Further, Knotter does not qualify as prior art under Section 102(e). Applicants' foreign priority applications, Japanese Application Nos. P2000-214974 and P2000-240134, filed July 14, 2000, and August 8, 2000, respectively, predate the respective effective priority date of Knotter.

Because the cited reference fails to disclose every feature recited in claims 6, 12, and 18 and Knotter does not qualify as prior art, the rejection is improper. Accordingly, Applicants respectfully request the rejection be withdrawn.

Claims 8, 9, 11, 13, and 19 – Section 103(a)

Applicants respectfully request reconsideration of the rejection of claims 8, 9, 11, 13, and 19 as being unpatentable over Knotter in view of U.S. Patent No. 5,389,524 (Larsen). The rejection of claims 8, 9, 11 and 13 is improper because the claims depend from improperly rejected claim 6. Specifically, claims 8, 9, 11 and 13, like claim 6, recite a substrate cleaning apparatus for cleaning a substrate including a substrate cleaning bath and measuring means for measuring characteristics of the cleaning liquid in the substrate cleaning bath, the characteristics being relative to the hydrofluoric acid concentration of the cleaning liquid. Larsen discloses a method for monitoring a chemical component dissolved in a medium. Knotter and Larsen, individually or in combination, fail to show or suggest a substrate cleaning apparatus for cleaning a substrate including a substrate cleaning bath and measuring means for measuring characteristics of the cleaning liquid in the substrate cleaning bath wherein the characteristics are relative to the hydrofluoric acid concentration of the cleaning liquid.

Regarding claim 19, the rejection is improper because claim 19 depends from improperly rejected claim 18. Specifically, claim 19, like claim 18, recites a substrate cleaning apparatus for cleaning a substrate including a substrate cleaning bath and measuring means for measuring hydrofluoric acid concentration of the cleaning liquid in said substrate cleaning bath. Knotter and Larsen, individually or in combination, fail to show or suggest these features.

Further regarding claims 8, 9, 11, 13 and 19, Knotter does not qualify as prior art under Section 102. Applicants' foreign priority applications, Japanese Application Nos. P2000-214974 and P2000-240134, filed July 14, 2000 and August 8, 2000, respectively, predate the respective effective priority date of Knotter.

Because claims 8, 9, 11, and 13 and claim 19 depend on improperly rejected claims 6 and 18 and because Knotter does not qualify as prior art, the rejection is improper. Accordingly, Applicants respectfully request that the rejection be withdrawn.

Conclusion

As it is believed that the application is in condition for allowance, a favorable action and Notice of Allowance are respectfully requested.

Respectfully submitted,

Date:

7/8/5



Mickki D. Murray, Reg. No. 56,846

Customer No. 26263

314.259.5909